

Additional chart coverage may be found in CATP2, Catalog of Nautical Charts.

## SECTOR 1 — CHART INFORMATION

# SECTOR 1

## DENMARK AND SWEDEN—THE SOUND

**Plan.**—This sector begins with a description of the N end of The Sound; from Kullen Light to Helsingborg on the Swedish side and from Nakkehoved Light to Helsingør on the Danish side. The central part of The Sound is then described; continuing from Helsingborg to Barsebackshamn (55°45'N., 12°54'E.) on the Swedish side and from Helsingør to København on the Danish side.

The sector concludes with a description of the S end of The Sound; continuing to Falsterbo Udde Light (55°23'N., 12°49'E.) in Sweden and Mon Light (54°57'N., 12°33'E.) in Denmark.

### General Remarks

**1.1** The Sound, called Oresund in Swedish and Sundet, or Oresund, in Danish, is the E of three passages which connect the Kattegat with the Baltic Sea. It lies between the W coast of Sweden and the E coast of Sjaelland, and extends in a general S direction from a line joining Kullen (56°18'N., 12°27'E.) and Gilbjerg Hoved (56°08'N., 12°18'E.) to a line joining Falsterbo (55°24'N., 12°50'E.) and Stevns Light (55°17'N., 12°27'E.).

The coasts on both sides of The Sound are indented by bays. Lying close to the coast of Sjaelland is the large island of Amager, and E of Amager is Saltholm. Both islands are in Danish waters. Extensive coastal banks and numerous detached shoals encumber much of the S part of The Sound. Drogden, the deeper of the two main channels used by vessels proceeding through The Sound S of København and Malmö, leads between Amager and Saltholm. Flintrannan, the principal E channel, leads between Saltholm and the Swedish coast.

The port of København, lying with its N limit about 2.5 miles S of Skovshoved, comprises portions of the coast of Sjaelland and Amager and the greater part of the passage between those islands. On the Swedish coast, the port of Malmö lies nearly 9 miles SSE of Barsebackshamn, and about 2.5 miles SW of Malmö is the smaller port of Limhamn. There are also a number of small harbors and loading places on both the Swedish and Danish coasts.

The Oresund Link (55°38'N., 12°39'E.), a tunnel-bridge project, connects the Danish island of Sjaelland with Sweden (see paragraph 1.20 for details).

A description of the S approach to The Sound, with the coasts of Sjaelland and Mon forming the W side of that approach, is included in this sector.

The sector concludes with descriptions of the coast of Sjaelland from Stevns Klint Light to Jungshoved and the N and E coasts of Mon.

**Ice.**—In winter, certain buoys are withdrawn or replaced by winter buoys. When ice compels the withdrawal of lighted buoys, they are replaced by winter seamarks fitted with light reflective material, which, when illuminated, will show the colors in which the seamarke is painted. In Danish and Swedish waters, the method used is the IALA Comprehensive Code.

Black is indicated by a blue reflector. The cardinal marks carry reflector bands, as follows:

1. North cardinal—One blue band over one yellow band.
2. East cardinal—Two blue bands.
3. South cardinal—One yellow band over one blue band.
4. West cardinal—Two yellow bands.

Lighted buoys marking transit routes TSS schemes are maintained as long as possible and are only replaced or withdrawn in severe ice conditions.

Ice may wear the color from buoys and topmarks may be lost or damaged.

Mariners should pay particular attention to the refraction and deflection of light sector projections caused by ice during the cold season. Where an angle of uncertainty exists, a frequent check must be made to determine whether the vessel is keeping on the desired course by the use of additional aids to navigation.

Icebreaking services in the region are provided under a cooperative agreement between Sweden, Denmark, Finland, and Norway, with the purpose of having identical regulations. Requests for assistance should be made direct to the icebreaker, if close, or to the State Ice Service through any coastal radio station.

For additional information on icebreaker services, regulations, and related subjects, see Pub. 140, *Sailing Directions (Planning Guide) North Atlantic Ocean, Baltic Sea, North Sea, and the Mediterranean Sea (Sweden)*.

The Danish State Ice Service centered at Århus can be contacted by E-mail at bk4@sok.dk. The Swedish State Ice Service centered at Norrköping can be contacted by E-mail at opc@sjofartsverket.se.

**Tides—Currents.**—The range of tide in The Sound is negligible.

The water level depends mainly on the wind and the current. In the narrower channels, strong winds may cause a considerable change in the water level. Gales causing a N current may lower the water level by 0.6 to 0.9m below mean water level and gales causing a S current may raise it by the same amount.

The highest water level usually occurs in July and August, and it continues to be fairly high in September and October. Low water levels occur most frequently in April and May, and to some extent in March. In the other months, mean water level usually prevails.

The direction and strength of the currents in The Sound depend to a large extent on wind and atmospheric pressure. In the wider parts of The Sound, it has been observed that a N current usually prevails for 7 months of the year, a S current prevails for 4.5 months, and during the remaining period there is no current. This proportion varies during the different months. During January and April, there is twice as much N current as there is S current. In March, May, and November, the N and S currents are of equal frequency. During February and December, the proportion is normal. In June, the S current

occurs most frequently and during July, August, September, and October it is usually prevalent.

**Depths—Limitations.**—Vessels, with drafts up to 12.5m, may proceed to Malmo, in the N part of The Sound, and vessels, with drafts up to 10m, have been reported to reach Kobenhavn.

Vessels transiting the S part of The Sound and proceeding into the Baltic may pass through either Drogden Channe or Flintrannan Channel. Drogden Channel has a dredged depth of 8m and may be used by vessels with drafts up to 7.7m. Flintrannan Channel is swept to depth of 8.4m and may be used by vessels with drafts up to 7m. The Oresund Link bridge spanning Flintrannan Channel has a vertical clearance of 55m.

**Pilotage.**—The Baltic Pilotage Authorities Commission recommends that, when bound to or from ports in the Baltic Sea, masters should avail themselves of deep sea pilots, certified by a competent authority of a Baltic coastal state, as follows:

1. Masters of ships which are constrained by their draft.
2. Masters of ships, other than those registered in one of the Baltic States, infrequently sailing in the respective area.
3. Masters of loaded oil and chemical tankers and gas tankers, irrespective of their size.

Vessels requiring a licensed deep sea pilot in the Baltic Sea areas of Sweden should send a request at least 24 hours in advance to one of the following stations:

1. For the Baltic Sea, vessels should contact Lulea, Stockholm, or Malmo Pilots.
2. For the North Sea, Goteborg Pilots may be contacted.
3. For the Kattegat, Malmo Pilots, Helsingborg, or Goteborg Pilots may be contacted.

Requests for pilots for The Sound should be forwarded to Helsingborg Pilots for southbound vessels and to Malmo VTS for northbound vessels, at least 5 hours in advance.

Ice pilotage requests should be made 24 hours in advance through Stockholm, Goteborg, Lulea, or Malmo pilot stations.

Vessels requiring a licensed deep sea pilot for the routes in the Baltic Sea areas of Denmark should send a request to one of the following stations, giving at least 12 hours notice and a confirmation 3 hours prior to arrival:

1. Skagen Pilot Station (57°44'N., 10°38'E.) (DAN-PILOT).
2. Store Baelt (55°56'N., 10°50'E.) (DANPILOT).
3. Dragor (55°35'N., 12°40'E.) (SOUNDPILOT).
4. Gedser (54°34'N., 11°56'E.).

Vessels requiring port pilotage should send a request at least 6 hours in advance with a confirmation 1 hour prior to arrival.

All pilotage requests should include name, call sign, IMO number, grt, length, beam, draft, ETA, speed, destination.

Pilotage in The Sound is carried out by both Danish and Swedish pilots. Danish pilots do not pilot vessels E of Ven (55°54'N., 12°42'E.) and Swedish pilots do not pilot vessels through Drogden Channel. However, pilots are generally allowed to take vessels to the roadsteads lying off each other's ports.

The main Danish pilot station for The Sound (call SOUNDPILOT) is located at Kobenhavn. Generally, pilots board northbound vessels about 1.2 miles S of Drogden Light (55°32'N., 12°43'E.) and southbound vessels in the vicinity of Lighted Buoy M1 (56°07'N., 12°31'E.).

The main Swedish pilot stations for The Sound are located at Malmo and Helsingborg. All ordering of pilots must be made through Malmo VTS. Generally, pilots board northbound vessels about 1 mile NNE of Lighted Buoy M41 (55°25'N., 12°40'E.) and southbound vessels in the vicinity of the M1 lighted buoy (56°07'N., 12°31'E.) or Lighted Buoy M3, 4 miles SE. Pilots board deep-draft tankers about 8 miles S of Smygehamn (55°22'N., 13°21'E.).

For further regulations concerning pilotage in [Danish](#) and [Swedish](#) waters, see Pub. 140, Sailing Directions (Planning Guide) North Atlantic Ocean, Baltic Sea, North Sea, and the Mediterranean Sea.

**Regulations.**—With reference to the IMO recommendations stated below, the Danish Maritime Authority recommends that vessels having drafts of 13m or more bound for Enstedvaerket at Abenra, Stigsnaesvaerket and Gulfhavn at Stigsnaes, and Asnaesvaerket comply with the following:

1. A pilot shall be used for the entire passage from Skagen to the harbor.
2. The vessel shall be fitted with a VHF radio with appropriate frequencies.
3. The vessel shall be fitted with suitable electronic position fixing equipment which, with sufficient accuracy, can be used continuously within the area in question.
4. The vessel shall be fitted with a 3cm and a 10cm radar both in workable condition.
5. The vessel shall participate in the ship reporting system operated by the Danish Government (SHIPPOS) and, if Store Baelt is used during the journey, also in the Great Belt Traffic VTS system.
6. When constrained by draft, the vessel shall show the appropriate signal as prescribed in the International Regulations for Preventing Collisions at Sea.
7. The master must be aware that temporary anchoring may be necessary due to weather and sea conditions in relation to the size and draft of the ship and the sea level.

Attention is drawn to the fact that a greater risk of grounding exists during periods of icy conditions, when buoyage can not be relied on expected to be in position and in order. Should the passage take place under such conditions, the following measures are further recommended:

1. When navigating S of latitude 56°N (Sjaellands Odde), the ship shall use two tugboats. Each of the tugboats shall be fitted with a suitable electronic position fixing system and have a pilot on board. The passage shall, if deemed necessary, take place in daylight and in good visibility.
2. For ships fitted with a special and workable position fixing system, e.g. a radar mapping system, the use of tugboats mentioned in 1 above may be limited to the passage between Keldsnor and Enstedvaerket.

On becoming aware of the fact that a ship bound for one of the four harbors mentioned above does not comply with these recommendations, vessels are requested to report the findings to the Danish Maritime Authority.

Vessels requiring distance pilotage may be required to embark two pilots.

The IMO recommends that oil tankers with a draft of 7m or more, all loaded chemical tankers and gas carriers, irrespective of size, and ships carrying a shipment of Class 7 radioactive

materials should use the pilotage service established by the governments of Denmark and Sweden when navigating in a designated part of The Sound described below.

The designated area lies SE of a line extending from Svinbaden Light (56°09'N., 12°33'E.) to Hornbaek, 4 miles SW, and N of a line extending from Skanor (55°25'N., 12°50'E.) to Aflandshage, the southernmost point of Amager Island, lying 12 miles NW.

Because charted depths may be up to 2m less due to unknown obstructions or meteorological effects and in view of the fact that 17m is the maximum depth, the Maritime Safety Commission of the IMO recommends that ships exceeding 40,000 dwt, when passing through the entrances to the Baltic Sea, should comply with the following:

1. Not pass any area with a draft deeper than that with which it is safe to navigate taking into consideration those factors stated above.
2. Participate in the ship reporting system (SHIPPOS) operated by the Danish government.
3. Exhibit the appropriate signal in certain areas of the Store Baelt (Hatter Rev, Vengeancegrund, and in the narrow route E of Langeland), when constrained by draft.

The Maritime Safety Commission of the IMO recommends that vessels having a draft of 13m or more, in addition to the above, should also comply with the following:

1. Use the services of a licensed pilot for the area.
2. Be fitted with a VHF radio with appropriate frequencies.
3. Be fitted with suitable electronic position fixing equipment, which provides sufficient accuracy for navigating within the area.
4. Be aware that temporary anchoring may be necessary due to weather and sea conditions in relation to the size and draft of the ship and the sea level.

All vessels, irrespective of size or draft, carrying a shipment of class 7 radioactive materials should:

1. Use the services of a licensed pilot for the area.
2. Be fitted with a VHF radio with appropriate frequencies.
3. Participate in the ship reporting system (SHIPPOS) operated by the Danish government.

For further details concerning IMO resolutions, pilotage in Danish waters, and the SHIPPOS Reporting System, see Pub. 140, [Sailing Directions \(Planning Guide\) North Atlantic Ocean, Baltic Sea, North Sea, and the Mediterranean Sea](#).

**Directions.**—For details of designated routes in the Kattegat, see Pub. 193, [Sailing Directions \(Enroute\) Skagerrak and Kattegat \(Sector 7\)](#). Route B, which may best be seen on the chart, leads SE into The Sound.

An IMO-adopted Traffic Separation Scheme (TSS), which may best be seen on the chart, lies in the N part of The Sound between Helsingborg, Sweden and Helsingør, Denmark. Its separation zones are marked by lighted buoys.

Lighted Buoy M4 (56°03'N., 12°39'E.), equipped with a racon, is moored near the central part of the TSS.

The central part of The Sound is divided into two passages by the island of Ven (56°55'N., 12°42'E.). The E passage is deeper and is used by deep-draft vessels proceeding to København. The W passage is shorter and is used by most vessels proceeding to and from the Baltic Sea.

The S part of The Sound is divided into two channels by Saltholm (55°38'N., 12°45'E.). Drogden leads S on the W side and is the deepest channel leading through the Sound. The deep-water route for Malmö leads SSE on the E side and then Flintrännan Channel continues SW. Both channels rejoin in the vicinity of Drogden Light (55°32'N., 12°43'E.).

An IMO-adopted Traffic Separation Scheme (TSS), which may best be seen on the chart, lies in the S part of The Sound. Its circular separation zone is centered on Falsterborev Light (55°18'N., 12°40'E.).

**Caution.**—Several areas, within which submarine cables lie, are situated in The Sound and may best be seen on the chart. Many of these areas are marked by lighted beacons on the adjacent shores.

High speed ferries may be encountered within The Sound. Ferry traffic is especially heavy during the summer.

Fishing is carried on extensively in The Sound throughout the year, but mainly during spring and fall. A sharp lookout should be kept to avoid drift nets and other fishing gear laid in these waters.

The waters on the Swedish side of the S entrance to the Sound lie within former NEMEDRI Mine Danger Area No. 10, within which anchoring, fishing, or any form of seabed activity could be dangerous.

On the Danish side, there are a few small areas S of København where anchoring, fishing, or underwater activities should be avoided due to the possible existence of mines. See Pub. 140, [Sailing Directions \(Planning Guide\) North Atlantic Ocean, Baltic Sea, North Sea, and the Mediterranean Sea](#) for further details.

Between April and November, numerous yacht racing buoys may be moored up to about 1 mile off the small harbors located along both coasts of The Sound.

## North Entrance of The Sound to Helsingborg and Helsingør

**1.2** The Swedish coast between Kullen (56°18'N., 12°27'E.) and Viken, a fishing village located about 10 miles SSE, is low and sparsely wooded. From Viken to Helsingborg, 7.5 miles farther SSE, the land becomes higher. There are no large coastal indentations. The port of Höganas is situated about 7 miles SSE of Kullen and several small fishing harbors lie along the stretch between Kullen and Helsingborg.

The range of tide along this part of the coast is negligible, the water level change depending mainly on the wind and the current. The shore is fringed by a coastal bank and all dangers, with the exception of some wrecks, lie inside the 20m curve.

**Kullen Light** (56°18'N., 12°27'E.) is shown from a prominent tower, 15m high with an adjacent house, standing 0.2 mile SE of the NW extremity of the promontory. Hogkull, 188m high, rises 2.7 miles ESE of the light and is the tallest peak in this area.

**Molle** (56°17'N., 12°30'E.), a small fishing harbor, is situated 2 miles SE of Kullen Light. It is protected by breakwaters and has an entrance facing WNW.

Krappørup Manor House, a prominent building, stands about 1.5 miles SE of Molle.

**Lerhamn** (56°15'N., 12°31'E.), a small harbor, is situated 2 miles SSE of Molle and is used only by small craft.



*Courtesy of Donald and Diana Carter*

**Kullen Light**

**Nyhamnslage** (56°15'N., 12°32'E.), a small fishing harbor, is situated 0.8 mile SSE of Lerhamn and has an entrance facing SSW.

**1.3 Hoganas** (56°12'N., 12°33'E.) ([World Port Index No. 24100](#)), a small port, is situated about 7 miles SE of Kullen Light. It is protected by a mole on the W side and the entrance faces SSE.

**Winds—Weather.**—During NW gales, in the fall, the water level in the harbor may rise about 1.6m above mean level. During SE gales, in the spring, it may fall about 1.1m below mean level. Normally, LW is about 0.6m below mean level.

**Ice.**—The harbor is seldom closed by ice.

**Depths—Limitations.**—The approach channel leads E through the coastal dangers and is dredged to a depth of 8.2m over a bottom width of 40m. The harbor has a depth of 8.2m. The W quay is 370m long and the loading pier, on the E side of the harbor, is 125m long. Vessels up to 130m in length and 7.4m draft can be accommodated.

**Aspect.**—An outer approach lighted buoy is moored about 1.6 miles W of the harbor entrance. The approach channel is indicated by a lighted range and marked by buoys at its inner end.

A prominent church stands in the town, 0.9 mile E of the harbor, and another church, with a prominent spire, is situated at Vasby, about 1.5 miles E of the harbor.

**Pilotage.**—Pilotage is compulsory. Pilots are provided by the station at Helsingborg and board in the vicinity of the outer approach lighted buoy.

**Regulations.**—Vessels with drafts over 6.7m must use the services of a tug or the pilot launch when turning within the harbor.

**Caution.**—The daymarks for the approach range are reported to be difficult to distinguish against the trees behind them.

**1.4 Lerberget** (56°11'N., 12°34'E.), a small harbor, is situated 1.4 miles S of Hoganas. It is protected by breakwaters

and has an entrance facing WSW. This harbor is used only by fishing boats and pleasure craft.

**Viken** (56°08'N., 12°35'E.), a small harbor, is situated 3.4 miles S of Hoganas. The town is a resort and the harbor is used almost entirely by yachts.

A prominent church, white with a red roof and a pointed tower, stands in Viken; Kulla Gunnarstorp Manor House, a conspicuous building, is situated 3 miles SE of it.



**Kulla Gunnarstorp Manor House, bearing about 011°**

**Svinbadan Light** (56°09'N., 12°32'E.) is shown from a prominent tower, 25m high and floodlit, standing about 1 mile offshore, 1.4 miles NW of Viken.

Domsten, a yacht harbor, is situated 1.5 miles SSE of Viken and is marked by a light.

A prominent castle stands 1 mile E of Sofiero, about 1.2 miles SSE of Kulla Gunnarstorp manor house.

**Anchorage.**—Anchorage can be taken, in a depth of 20m, blue clay, about 1 mile W of Viken, but this roadstead is exposed to winds from NW through W to S.

## **Helsingborg (56°03'N., 12°42'E.)**

[World Port Index No. 24120](#)

**1.5** The port of Helsingborg is situated on the E bank of the narrowest part of The Sound, directly opposite the Danish port of Helsingor. The industrial part of the city is situated at its S end. The port, which is a main ferry terminal, consists of three sheltered harbors and is open for navigation throughout the year.

**Tides—Currents.**—Gales from between W and N usually raise the water level and gales from between E and S usually lower it. The maximum variations in water level are 1.7m above and 0.9m below mean level. During calm weather, the variation in water level is slight.

The currents outside the harbor are variable and frequently strong. There are often surface and bottom currents setting at the same time in different directions and with different velocities. The current usually sets N near the entrances. However, with winds from between W and N, the current may set S with the change occurring quickly.

**Depths—Limitations.**—Nordhamnen, or the North Harbor, is the old port fronting the center of the city. It is protected on the S side by a short detached breakwater and on the N side by a curved breakwater. The N entrance, which has a depth of 9m, is used only by small vessels due to the current setting across



*Courtesy of Port of Helsingborg*

**Helsingborg—North Harbor**



*Courtesy of Port of Helsingborg*

**Helsingborg—West Harbor**



*Courtesy of Port of Helsingborg*

**Helsingborg—South Harbor**

it. The S entrance has a depth of 10m and is 90m wide. Nordhamnen provides four basins.

Cityhamnen (Basin 1), the northernmost basin, has a depth of 6.8m and is used by small craft. A marina, with a separate entrance, lies N of this basin.

Inre Hamnen (Basin 2) has depths of 3.6 to 6m; the berths on the S side are used by ro-ro automobile ferries.



*Courtesy of Port of Helsingborg*

**Helsingborg—Bulk Harbor**

Sodra Hamnen (Basin 3) has depths of 6 to 8m; the berths on the N side are used by railroad ferry traffic.

Ocean Harbor (Basin 4) is the outermost basin. The E quay is 480m long and has depths of 8 to 10m alongside. The W quay provides one cargo berth and two ro-ro ferry berths, 90 to 130m long, with depths of 7 to 8.5m alongside.

Vessels up to 180m in length, 35m beam, and 8.5m draft can be accommodated in Nordhamnen.

Vasthamnen, or West Harbor, is situated 0.7 mile S of Nordhamnen and has an entrance facing S, with a depth of 13m. The harbor has two basins and provides terminals for ferries, ro-ro, and container vessels. The large basin has two quays, 265m and 300m long, with depths of 13m alongside. The small basin has two quays, 184m and 220m long, with depths of 9m alongside. Vessels up to 225m in length and 11.7m draft can be handled.

Sydamnen, or the South Harbor, lies close S of Vasthamnen and contains Basins 5, 6, and 7. Basin 5 provides two oil berths, with depths of 11m alongside, which can be used by tankers up to 10.5m draft. Basin 6 provides a grain terminal berth, 460m long, with depths of 10.5 to 13.5m alongside. Basin 7 has 1,350m of quayage and provides ten cargo berths, with depths of 8 to 11.5m alongside.

Bulkhamn, previously known as Kopparverkkshamnen, is situated 0.8 mile SSE of Sydamnen. This bulk harbor is privately owned and serves the adjacent copper works.

The quay at the W side of the harbor basin is 440m long. It provides seven berths and has depths of 7 to 10.5m alongside. The quay at the E side is 180m long. It provides three berths, with a depth of 7m alongside. Vessels up to 10m draft can be handled.

The port can accommodate vessels up to 65,000 dwt, 230m in length, and 12.3m draft.

**Aspect.**—A main light is shown from a prominent tower on a house, 18m high, standing at the root of the curved breakwater at the N side of Nordhamnen.

The harbor entrance channels are indicated by lighted ranges, which may best be seen on the chart.

Karnan Tower, red and square, stands on high ground about 0.6 mile NE of the entrance to Nordhamnen and is prominent from seaward. A water tower and a radio mast, both con-

spicuous, are situated about 1 mile NNE and 0.6 mile ENE, respectively, of Karnan Tower.

A conspicuous chimney stands at a heating plant on the N side of Vasthamnen and several prominent silos are situated within Sydhamnen. A number of prominent chimneys stand in the N part of Bulkhamnen.

**Pilotage.**—For information concerning pilotage in The Sound, [see paragraph 1.1.](#)

A main pilot station is located at Helsingborg. This station provides pilots for that part of the Oresund Maritime Area extending between the vicinity of Hallands Väderö (56°30'N., 12°30'E.) and Landskrona. Pilotage for this part of the area is available 24 hours and is compulsory for the following vessels:

1. All category 1 vessels.
2. Category 2 vessels of 80m length and over or 15m beam and over.
3. Category 3 vessels of 90m length and over or 16m beam and over.

All ordering of pilots for the Oresund Maritime Area must be made through Malmö VTS ([see paragraph 1.18](#)). Generally, pilots for the harbors board northbound vessels in the vicinity of Lighted Buoy M7 (55°58.9'N., 12°41.5'E.) and southbound vessels in the vicinity of Lighted Buoy M1 (56°07.3'N., 12°31.7'E.) or Lighted Buoy M3 (56°04.6'N., 12°36.8'E.).

**Regulations.**—A Vessel Traffic Service (VTS) system controls shipping movements, including ferries, within the approaches to the port.

All vessels should send a report at least 24 hours in advance to the port authority.

Vessels should report at least 1 hour in advance of arrival or departure to the Harbor Radio on VHF channel 11 in order to obtain traffic information.

Vessels should report to the VTS Port Control Center (Helsingborg) on VHF at least 30 minutes prior to entering the fairways leading to the harbors or departing a berth.

Vessels with a draft exceeding 2.4m are restricted to a speed of 4 knots within the harbors.

**Anchorage.**—Anchoring in the roadstead of the port should be avoided because of the close proximity to the inshore lanes of the TSS and the heavy volume of ferry traffic.

**1.6** The Danish coast is cliffy and devoid of trees in the vicinity of Gilbjerg Hoved (56°08'N., 12°18'E.) at the NW side of the entrance to The Sound. Between Nakkehoved, a bush-covered cliff located 2 miles ESE of Gilbjerg Hoved, and Helsingør, 10 miles ESE, the foreshore is low and the land within the coast is alternately high and low, with wooded areas in places. Much of the SE part of this stretch of coast is thickly populated. A number of small fishing harbors are located between Gilbjerg Hoved and Helsingør.

**Gilleleje** (56°08'N., 12°19'E.), a resort town, is fronted by a small harbor, which is protected by breakwaters. The entrance is 40m wide, has a depth of 4.5m, and faces NNE. The harbor is mostly used by fishing vessels and pleasure craft. A dredged channel leads SSW through the dangers lying in the approaches to the entrance. Vessels up to 40m in length, 9m beam, and 3.6m draft can enter.

A prominent water tower and a church, with a conspicuous black spire, stand in the town.

Gilleleje Flak, a shoal area, extends up to about 1.8 miles N of Gilleleje harbor. It has depths of 2.5 to 7.2m and is marked by buoys.

**Nakkehoved Light** (56°07'N., 12°21'E.) is shown from a prominent tower, 21m high, standing 1 mile ESE of Gilleleje. A disused light tower is situated about 0.2 mile E of the light.



**Nakkehoved Light**

**1.7 Hornbaek** (56°06'N., 12°28'E.), a small fishing harbor, is situated 5 miles ESE of Gilleleje and protected by breakwaters.

Hornbaek Bugt, extending NW of the harbor, affords temporary anchorage to sailing vessels that have been prevented by adverse current and wind from entering the narrow part of The Sound.

A conspicuous windmill, without sails, stands at Dronninge, 2.5 miles W of Hornbaek.

**Alsgarde** (56°05'N., 12°32'E.), a fishing village, is situated about 3 miles ESE of Hornbaek. A pier, 150m long, fronts the E side of the village and has a depth of 1.5m alongside its head.

Odinshøj, a windmill without sails, stands about 0.3 mile WNW of Alsgarde and is conspicuous from seaward.

A conspicuous red factory, with a tall chimney, is situated at Hellebaek, about 3.5 miles ESE of Hornbaek.

**Julebaek Light** (56°04'N., 12°34'E.) is shown from a prominent hut, 4m high, standing about 1.5 miles SE of Alsgarde.

**Kronborg Pynt** (56°02'N., 12°37'E.), situated 2.2 miles SE of Julebaek Light, is steep-to. Kronborg Castle stands on this point and is very conspicuous. This castle was the setting for Shakespeare's Hamlet.

A main light is shown from a tower, 32m high, surmounting the NE part of the castle.



Kronborg Castle



Kronborg Castle from seaward

**Helsingør Nordhaven** (56°02'N., 12°37'E.), situated 0.3 mile NW of Kronborg Pynt, is an extensive marina. It is protected from N by a long curved breakwater. The entrance faces SE and is 35m wide. Small craft and yachts up to 35m in length, 6m beam, and 2.5m draft can enter.

**Caution.**—Several shoal patches, with depths of less than 10m, front the shore between Nakkehoved Light and Hornbæk, about 6 miles ESE. Large vessels should avoid proceeding into depths of less than 20m in this area.

### Helsingør (Elsingør) (56°02'N., 12°37'E.)

[World Port Index No. 29350](#)

**1.8** Helsingør, a commercial port, is situated close W of Kronborg Pynt. The ferry service between this harbor and Helsingborg, Sweden, provides the principal port activity.

**Winds—Weather.**—The water level may be raised by up to 1.5m by winds from between WNW and N. It may be lowered by up to 1.2m by winds from between ESE and S.

**Ice.**—Navigation may be hampered to some extent by ice during severe winters, but the harbor is always kept open by icebreakers.

**Tides—Currents.**—The tidal range is negligible.

The N current sets past the head of the S breakwater and toward the shore W of Kronhoved, a point lying 0.2 mile SW of Kronborg Pynt. At the same time an eddy often sets W along the shore, turning S toward the harbor entrance.

The S current sets SW from Kronborg Pynt and across the harbor entrance. The current can attain a velocity of 3 knots, at times.

**Depths—Limitations.**—The main harbor basin, which provides 2,100m of quayside, is entered between two breakwaters. The entrance is 61m wide and has a depth of 7.5m. The basin has 16 berths, 23 to 160m long, with depths of 4 to 7.5m alongside. There are facilities for ferries, general cargo, container, tanker, ro-ro, and cruise vessels. Vessels up to 170m in length, 30m beam, and 6.6m draft can be accommodated.

It is reported (2001) that a ferry berth, with a depth of 17m alongside, is located close S of the S breakwater.

**Aspect.**—Kronborg Castle stands on Kronborg Pynt, close E of the harbor. Two prominent churches are situated in the town. Lights are shown from structures, 6m high, standing on the breakwater heads.

**Pilotage.**—For information concerning pilotage in The Sound, see [paragraph 1.1](#). Pilotage for the port is provided by the main station at København (SOUNDPILOT). Vessels should send a request for pilotage and an ETA at least 6 hours in advance. Pilots can be contacted by VHF and board in the vicinity of Lighted Buoy M1 (56°07'N., 12°31'E.).

Pilotage for the port is compulsory for oil tankers, loaded chemical carriers, and gas tankers. Pilotage is recommended for all vessels without local knowledge.

Tankers, whose Master has called at the harbor at least five times within the past 6 months, are exempt from compulsory pilotage, but such vessels must establish radio contact with the port authority and maintain a listening watch on VHF channel 16.

**Regulations.**—Vessels leaving must wait for vessels entering. Vessels entering should sound one long blast, in sufficient time.

Speed within the harbor is restricted to 3 knots, but vessels may maintain a speed of 6 knots during entry and departure.

**Anchorage.**—Anchorage may be obtained in Helsingør Redd (56°01'N., 12°37'E.), the roadstead area lying S of Kronborg Pynt. A strong current, which diminishes in strength as the distance from Kronborg Pynt increases, may be experienced in this roadstead. When approaching the anchorage, caution is required due the number of ferries transiting this area. Vessels are advised not to anchor in that part of the roadstead located close N of Snekkersten (56°01'N., 12°36'E.) because the holding ground is too soft and numerous abandoned cables and anchors lie on the bottom.

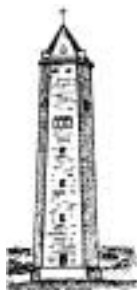
## The Sound—Central Part

**1.9** The central part of The Sound extends between Helsingborg and Barsebäckshamn (55°45'N., 12°54'E.), on the Swedish side, and between Helsingør (Elsingør) and København, on the Danish side.

The coast between Helsingborg (56°03'N., 12°42'E.) and Landskrona, about 11 miles SSE, is mainly hilly, but is low near the shore in places. The island of Ven lies with its S end located 4 miles WNW of Landskrona. Between Landskrona and Barsebäckshamn, 7 miles SSE, the coast recedes about 2.5 miles and forms Lundakrabukten. The land along the shore of this bight is low, but rises slightly inland.

**Raa** (56°00'N., 12°44'E.), situated 1.5 miles S of the Bulk Harbor at Helsingborg, is a harbor used by fishing vessels and yachts. The controlling depth in the entrance channel, which is subject to silting, is 3.5m. The basins provide 500m of berthage, with depths of 2.5 to 4m alongside.

A prominent octagonal water tower, with a conical roof, stands about 0.5 mile ENE of the harbor entrance.



**Raa Water Tower**

**Alabodarna** (55°56'N., 12°47'E.), a small harbor formed by two curved moles, is situated 3.5 miles SSE of Raa. It is used by fishing vessels and yachts. The entrance faces S and has a controlling depth of 2m.

**Borstahusen** (55°54'N., 12°49'E.), situated 3 miles SSE of Alabodarna, is a small harbor protected by two breakwaters. It has a depth of 3m and is used by small craft and fishing vessels.

**Anchorage.**—An anchorage area, which may best be seen on the chart, lies centered 0.9 mile SW of Raa. It has depths of 11 to 16m, clay. This roadstead is located clear of the main traffic routes through The Sound and E of the strongest current. Vessels anchored in this area are usually not affected by the heavy swell from the Kattegat during strong N winds.

**Caution.**—A small area, within which anchoring and fishing are prohibited due to the possible existence of bottom mines, lies in the approach to Raa and may best be seen on the chart.

**1.10 Ven** (55°54'N., 12°42'E.), a Swedish island, lies 3 miles SW of Alabodarna. It consists of plateau, 35m high, which is partially covered by trees. The coasts of the island are formed by steep cliffs, especially on the N and W sides.

Sankt Ibb, a church with a conspicuous spire, stand in the center of the island.

**Ven Light** (55°55'N., 12°40'E.) is shown from a prominent tower, 8m high, standing near the NW extremity of the island.

A lighted buoy is moored about 0.4 mile W of Ven Light and marks the coastal bank in this vicinity.

**Kyrkbacken** (55°55'N., 12°40'E.), a small craft harbor, is situated 0.6 mile SE of Ven Light. It is protected by two moles and has a depth of 2.7m in the entrance. An old church, consisting of a white building with a red roof and no tower, stands close above the harbor and is prominent from seaward.

Norrebro, a small yacht harbor, lies about 1 mile E of Ven Light and is protected by two breakwaters.

**Haken Light** (55°55'N., 12°44'E.) is shown from a prominent tower, 12m high with red dwellings, standing near the E extremity of the island.



**Ven Island—Haken Light**

**Backviken** (55°54'N., 12°43'E.), situated close S of Haken Light, is a small harbor, which is protected by two moles and a detached breakwater. It is used by yachts, fishing vessels, and a ro-ro ferry. The entrance has a controlling depth of 5m.

**Sodra Udde Light** (55°53'N., 12°43'E.) is shown from a prominent tower, 8m high, standing near the S extremity of the island.



**Ven Island—Sodra Udde Light**

**Staffans Bank** (55°53'N., 12°45'E.) lies centered 1.5 miles ESE of Sodra Udde Light and is marked by a lighted buoy at the SW end. It has depths of 10.5 to 16m and consists of sand, clay and shells.

**Anchorage.**—Large vessels can anchor about 1 mile NNE of Ven Light, in a depth of 25m. Anchorage may also be obtained, in a depth of 11m, in the vicinity of Staffans Bank.

**Caution.**—Several submarine cables, which may best be seen on the chart, extend between the E extremity of Ven and the Swedish mainland.

## Landskrona (55°52'N., 12°50'E.)

World Port Index No. 24180

**1.11** The port of Landskrona is situated on the mainland, about 4 miles SE of Ven. It is fronted and protected by Vasterflacket, an area of rocky and sandy shoals, which may best be seen on the chart.

**Winds—Weather.**—The water level is raised by W winds and lowered by E winds.

**Ice.**—The harbor is never closed by ice.

**Tides—Currents.**—The currents sometimes attain a velocity of 3 to 4 knots at the harbor entrance.

**Depths—Limitations.**—The main approach channel leads in a SE direction through extensive shoals to the harbor entrance and is dredged to a depth of 11m.

A minor channel, with a depth of 2.5m, leads NNW through the shoals to the harbor and is used by small craft with local knowledge.

The principal berths are situated on the N and E sides of the channel leading through the harbor. The port provides 2,220m of total quayside, with alongside depths of 5 to 11m. There are extensive facilities for bulk vessels. Vessels up to 190m in length, 30m beam, and 10.1m draft can be accommodated.

The Oresund Shipyard, at the SE end of the harbor, can handle vessels up to 30,000 dwt, 190m, in length, 30m beam, and 7.1m draft.

**Aspect.**—The main approach channel is indicated by a lighted range and marked by lighted buoys, which may best be seen on the chart.

The Citadel is situated close N of the harbor and is conspicuous from seaward. Graen, an old fort, stands on the S side of the harbor entrance and is prominent.

Conspicuous water towers stand on the N side of the harbor entrance and about 1 mile inland, in the NE part of the city.

Twelve prominent wind turbines, 46m high, stand on the edge of Gipson, an island lying close S of Graen.

**Pilotage.**—Pilots are provided by the station at Helsingborg (see paragraph 1.5). Pilots can be contacted by VHF and board off Landskrona by advance arrangement.

The night limitations are a maximum draft of 7m and a maximum length of 130m; vessels carrying ammonia are further limited to a maximum length of 110m.

**Regulations.**—Vessels entering at night are limited to a maximum draft of 7m and a maximum length of 130m; vessels carrying ammonia are further limited to a maximum length of 110m.

Speed is restricted to a maximum of 10 knots in the approach channel and 5 knots in the harbor area for vessels with drafts over 2.5m.

Under normal circumstances, inbound vessels take precedence over outbound vessels.



Landskrona

Vessels exceeding 50 grt and vessels towing with an overall tow length of more than 50m must report their arrival on VHF 2 miles before entry.

**Caution.**—Anchorage is prohibited in the vicinity of a submarine pipeline, which extends about 2.3 miles W from a position located close S of Graen.

**1.12 Grasrannan Light** (55°52'N., 12°48'E.), equipped with a racon, is shown from a prominent tower standing about 0.8 mile WSW of the harbor entrance at Landskrona.

**Knolen** (55°51'N., 12°44'E.), a detached shoal patch, lies about 2 miles SW of Grasrannan Light. It has a least depth of 9.6m and is marked by a lighted buoy, which is equipped with a racon.

**Lundakrabukten** (55°48'N., 12°53'E.) is a large bay entered between the S side of Landskrona and Barsebackshamn, about 7 miles SSE. The N part of this bay is encumbered by the shallow coastal bank, which extends up to about 3 miles seaward in places.

**Barsebackshamn** (55°45'N., 12°54'E.), a small harbor protected by breakwaters, is located at the S end of Lundakrabukten. It is used by fishing vessels and yachts. The harbor entrance faces SW and has a depth of 3m.

The shallow coastal bank extends up to about 0.5 mile seaward in the vicinity of Barsebackshamn and its outer edge is marked by a lighted buoy.

**Pinhatten Light** (55°45'N., 12°52'E.), equipped with a racon, is shown from a conspicuous tower, 13m high and floodlit, standing on a rocky shoal, 1.3 miles W of Barsebackshamn. A lighted buoy is moored 0.8 mile N of this light.

A detached shoal patch, with a depth of 7.6m, lies about 0.4 mile SW of the light and is marked by a buoy.

**Pilotage.**—Pilots board vessels, with drafts over 11m, proceeding to Malmo about 1.5 miles NW of Pinhatten Light.

**Anchorage.**—Designated anchorage areas, centered 1.8 miles N and 3.5 miles NW of Pinhatten Light, lie in Lundakrabukten and may best be seen on the chart. These areas have depths of 15 to 27m, but the holding ground is reported to be poor.

**Directions.**—Two routes lead in a SE direction toward the Malmo approaches from a position located about 3.2 miles S of

the S extremity of Ven. The route passing W of Pinhatten Light leads SSE for about 12 miles and has a controlling depth of 8m.

The route passing E of Pinhatten Light leads SE for about 4 miles, using the white sector of this light, and then 2.5 miles ESE into the SW part of Lundakrabukten. From a position about 1 mile N of Pinhatten Light, the track leads SSE and S for 2 miles, passing between the light and the lighted buoy marking the coastal bank. This route has a controlling depth of 12.5m.

**Caution.**—Several submarine cables, which may best be seen on the chart, extend seaward from the vicinity of the S part of Lundakrabukten.

**1.13** The Danish coast extending between Helsingør and Skovshoved, 16 miles S, has a number of wooded areas, with numerous houses and other buildings standing near the shore. Between Skovshoved and Vedbaek, about 5.5 miles N, the coast is so closely built over that structures and objects near the shore are difficult to identify from seaward.

**Snekkersten** (56°01'N., 12°36'E.), situated 2 miles SSW of Helsingør, is a small craft harbor formed by two breakwaters. The entrance faces ENE and has a depth of 2.8. The village is prominent from seaward.

**Espergaerde** (56°00'N., 12°34'E.), situated 1.4 miles SW of Snekkersten, is small craft harbor formed by two breakwaters. The entrance faces ENE and has a depth of 2.5m. A conspicuous church, with a square tower surmounted by a tall spire, stands in the N part of the village.

Tibberup Windmill stands about 0.7 mile SSW of Espergaerde and is conspicuous.

**Humblebaek** (55°58'N., 12°33'E.), situated 1.3 miles SSW of Espergaerde, is a small yacht harbor protected by two breakwaters. The entrance faces NE and has a depth of 2.5m. A prominent chapel, with a pointed tower, stands in the village.

**Sletten** (55°57'N., 12°32'E.), situated 1 mile SSW of Humlebaek, is a small craft harbor protected by two breakwaters. The entrance faces N and has a depth of 2.5m.

**Niva Havn** (55°56'N., 12°32'E.), a small craft harbor, lies 0.7 mile SSW of Sletten and is protected by two breakwaters. The entrance faces E and has a depth of 2.5.

**Rungsted** (55°53'N., 12°33'E.), situated 4 miles S of Sletten, is an extensive yacht harbor protected by two curved breakwaters. The entrance faces NW and has a depth of 3m.

**Vedbaek** (55°51'N., 12°35'E.), situated 2.2 miles SSE of Rungsted, is an extensive yacht harbor protected by two curving breakwaters. The entrance faces N and has a depth of 2.5m. Eremitagen, a large and conspicuous building, is reported to stand about 3.2 miles S of Vedbaek.

**Tarbaek** (55°47'N., 12°36'E.), a small harbor, lies 4 miles N of København and is protected by two breakwaters. It is used by fishing vessels and yachts. The entrance faces N and has a depth of 2m.

**Skovshoved** (55°46'N., 12°36'E.), situated 1.5 miles S of Tarbaek, is a small harbor formed by two breakwaters. The entrance faces E, has a depth of 4m, and is sheltered by a detached breakwater. The harbor is used by fishing vessels and yachts. Vessels up to 30m in length, 4.5m beam, and 3.5 draft can enter. A prominent church stands in the village.

**Lous Flak** (55°50'N., 12°38'E.), an area of shoals and flats, fronts the coast between Rungsted and Skovshoved. It extends up to 3.5 miles seaward in places and may best be seen on the chart. Lous Flak Lighted Buoy, equipped with a racon, is moored near the SE end of the area, about 4.8 miles NE of Skovshoved. This lighted buoy is replaced by a spar when ice forms.

**Tarbaek Rev** (55°47'N., 12°38'E.), a sand flat with rocky patches, extends up to about 2.3 miles seaward from the shore and is marked by a lighted buoy moored 2.5 miles E of Tarbaek.

**1.14 Middelgrunds Fort** (55°43'N., 12°40'E.) lies 3.2 miles SE of Skovshoved and is marked by lights at the NW and SE ends. It is situated at the N end of Middelgrund, an extensive shoal area, which extends up to about 3 miles S.

A foul ground area, which may best be seen on the chart, lies in the vicinity of this shoal area and is marked by buoys.

A prominent meteorological mast, 48m high, stands on the NW side of this foul area, 1.2 miles SSW of Middelgrunds Fort.

It is reported (2001) that a conspicuous line of 20 wind turbines, 2 miles long, stands on the E side of this foul area, about 0.4 mile E of the meteorological mast.

**Flakfort** (55°42'N., 12°44'E.), marked by a light, is a prominent object situated 2.4 miles ESE of Middelgrunds Fort, on the NW part of Saltholm Flak.

**Kongedybet** (55°41'N., 12°39'E.) is the channel leading between the bank fronting the NE shore of Amager, on its W side, and Middelgrund shoal, on its E side. This channel provides access to København from the Baltic Sea and Drogden Channel. It has a controlling depth of 11m (2000) lying between the coastal bank fronting the NE shore of Amager, on its W side, and Middelgrund shoal, on its E side. This channel provides access to København from the Baltic Sea and Drogden Channel. It has a controlling depth of 11m (2000).

**Hollaenderdybet** (55°42'N., 12°41'E.) is the channel lying between Middelgrund, on the W side, and the NW part of Saltholm Flak, on the E side. This channel, which is marked by lighted buoys, leads into the N end of Drogden (see paragraph 1.27).

**Caution.**—During the months of September, October, and November, fishing nets are laid in an area located between Helsingør and Rungsted. They extend seaward to a depth of about 13m. Each net is marked by buoys, with red flags at the inner end and green flags at seaward end.

A prohibited area, which may best be seen on the chart, surrounds Middelgrunds Fort.

A restricted area, within which anchoring and fishing are prohibited, lies centered about 0.4 mile SE of Middelgrunds Fort and may best be seen on the chart.

**1.15 Tuborg** (55°43'N., 12°35'E.) ([World Port Index No. 29260](#)), a small port, is situated close N of København and is the property of Carlsberg Breweries.

The harbor consists of three main basins and is protected by two breakwaters.

**Winds—Weather.**—During NW gales, the water level may be raised by about 1m and during SSW gales it may be lowered by the same amount.

**Depths—Limitations.**—The harbor entrance faces ENE and is 50m wide. The entrance channel, which has a dredged depth of 6.3m, leads WSW and is 60m wide.

The harbor has 600m of total quayage and provides six berths with depths of 4.5 to 6.3m alongside. Vessels up to 4,000 dwt and 6m draft can be accommodated.

**Aspect.**—The entrance channel is marked by lighted buoys and buoys. For additional landmarks, see Kobenhavn.

**Pilotage.**—Pilotage is provided by SOUNDPILOT, Kobenhavn (see paragraph 1.16).

**Caution.**—It is reported (2000) that the port is closed to traffic while construction is being carried out in the harbor.

## Kobenhavn (55°42'N., 12°37'E.)

World Port Index No. 29230

**1.16** Kobenhavn (Copenhagen) is the principal commercial port of Denmark and the main base of the Danish Navy. It is situated on the E coast of Sjaelland and includes most of the NW side of Amager, a flat island lying close offshore.

The port is composed of four main harbors. Nordhavnen (North Harbor), Inderhavnen (Inner Harbor), Sydhavnen (South Harbor), and Osthavnen (East Harbor).

**Winds—Weather.**—Gales from W to NW may raise the water level by up to 1.4m and gales from E to S may lower it by up to 1.1m.

**Ice.**—Only during occasional severe winters does ice hinder shipping in the harbor. At such times the port is usually kept open by icebreakers.

**Tides—Currents.**—The currents in Kronlobet and the harbor usually follow the direction of the channel, but sometimes the N current sets rather strongly toward Stubben (55°44'N., 12°37'E.) and the S current sets toward Trekroner Fort (55°42'N., 12°37'E.). The maximum velocity of the currents in the harbor is 2 knots.

**Depths—Limitations.**—The main approach route leading into the port from N passes through Renden, the N part of Kongedybet. This route leads SW and lies between Stubben, a shoal extending about 1 mile NNE from the N end of the port, and Middelgrunds Fort. The route then continues SW through Kronlobet, a dredged entrance channel, which is 150m wide and has a depth of 10m.

Lynettebødet, situated 0.6 mile S of the main entrance, leads W from Kongedyb into the outer harbor. This channel, which is dredged to a depth of 7m, leads across a shallow sand flat and through a small entrance, 30m wide.

Vessels approaching the port from S are limited by the controlling depth of Drogden Channel (see paragraph 1.27).

Skudelobet, a dredged channel, leads SSW to the northernmost group of basins in Nordhavnen. This channel passes between the coastal bank and the W side of Stubben. It has a controlling depth of 6.7m in the outer part and 6.3m in the inner part.



Kobenhavn—Main Entrance



Kobenhavn—Osthavnen

Kalvebodlobet, a narrow channel, leads NNE and NE from the N part of Koge Bugt (55°30'N., 12°30'E.) into the S part of the port. This channel has a controlling depth of 3.7m and a vertical clearance of 3m under the bridge in the S part of the port.

Nordhavnen (North Harbor) consists of Faergehavn Nord, Kalkbraenderihavnen, and Frihaven.

Faergehavn Nord, entered via Skudelobet, is a ferry harbor. It provides nine berths, with depths of 6.7m alongside.

Kalkbraenderihavnen, located 0.4 mile SSW of Faergehavn Nord, provides 11 berths, with depths of 6.3 to 6.7m alongside. An extensive marina lies on the NW side of this basin.

Frihaven, located close SW of the main entrance, consists of six basins. These basins provide 48 main berths, with depths of 8.1 to 10m alongside.

Yderhaven, the outer harbor, extends S between the main entrance of the port and Inderhavnen. A passenger ship terminal, 800m long, is situated at the W side and has depths of 9.1 to 10m alongside.



*Photo courtesy of Mogens Bech*

### Kobenhavn—Yderhavnen Passenger Terminal

Inderhavnen (Inner Harbor) extends S between Yderhaven and Sydhavnen. The NE part is occupied by the naval dockyard. The SE part provides 19 berths, with depths of 6.2 to 8m alongside. Christianshavns Kanal, which lies parallel to Inderhavnen on the E side, provides 35 berths, with depths of 4 to 5m alongside. The W part of Inderhavnen provides 19 main berths, with depths of 6.2 to 8.1m alongside.

Knippelsbro, a bascule road bridge, spans Inderhavnen, about 2 miles SSW of the main entrance. This bridge has a navigable width of 34m when open and a vertical clearance of 5m when closed.

Langebros, another bascule road bridge, spans Inderhavnen, about 0.4 mile SW of Knippelsbro. This bridge has a navigable width of 35m when open and a vertical clearance of 7m when closed.

Sydhavnen (South Harbor) provides 40 main berths, on the W side, with depths of 5 to 7m alongside, and 15 berths, on the E side, with depths of 6.2 to 7.7m alongside.

Osthavnen (East Harbor) is situated outside the main entrance on the NE coast of Amager. It consists of Amagerøen and Provstenshavn.

Amagerøen, the site of a power plant, provides ten berths, with depths of 6 to 12m alongside.

Provstenshavn, located S of Amagerøen, is connected to the NE side of Amager by a bridge and consists of a single basin protected by breakwaters. The entrance, which is accessed directly from Kongedybet, faces ENE and is 140m wide. This basin provides 12 berths, with depths of 5 to 10.5m alongside. Provstens Oliepier, located 0.2 mile N of the

entrance to the basin, is a T-shaped oil pier with a head, 50m long. Mooring dolphins situated at each side of the pier provide 310m of total berthage, with depths of 9.1 to 12m alongside.

The port has facilities for general cargo, ro-ro, ferry, passenger, cruise, bulk, container, and tanker vessels. The maximum size of vessel handled is limited only by draft.

**Aspect.**—The entrance channels are indicated by lighted ranges and marked by buoys, which may best be seen on the chart. A racon is situated at the light shown from the head of the S breakwater, at the main entrance. An outer approach lighted buoy is moored about 3 miles NE of the main entrance.

Trekroner, a prominent fort, is situated 0.2 mile S of the main entrance. A directional light is shown from a tower, 12m high, standing on the E side of the fort.

Three prominent chimneys stand in the vicinity of a power station at the NW side of Nordhavnen, 0.9 mile WNW of the main entrance. A gas works is situated 0.2 mile SW of the power station.

Jacobs Church, standing about 1.3 miles WSW of the main entrance, is prominent. It is situated between the gas works and an electricity plant.

A prominent silo is reported (2000) to stand at the N end of a pier in Frihavnen, 0.6 mile SW of Trekroner fort.

A conspicuous crane is situated on the E side of the entrance to Inderhavnen, about 1.2 miles S of the main entrance.

Frelsers Church, surmounted by a spire with an external spiral staircase, and Christians Church stand prominently in the city about 0.3 mile SE and 0.2 mile S, respectively, of Knippelsbro bascule bridge.



*Photo courtesy of Mogens Bech*

### Kobenhavn—Nordhavnen (Frihaven)

Several prominent tank farms are situated in the vicinity of Provstenshavn. Two conspicuous towers, which mark sewers, stand on the W side of Provstenshavn.

A conspicuous silo, 58m high, stands on the NE part of Amagervæket, about 1.3 miles SE of the main entrance.

Seven prominent wind turbines, 50m high, are reported (2001) to stand near the edge of the area of reclaimed land, about 0.9 mile SE of the main entrance.

**Pilotage.**—Pilotage is compulsory for oil tankers, loaded chemical tankers, and gas tankers, and for all vessels exceeding 80m in length passing through the bridges to the S part of the port. Pilots are provided by SOUNDPILOT, Kobenhavn.

Vessels should send an ETA message with a request for pilotage 6 hours in advance. A confirmation message should be sent 1 hour before arrival. The message should include the vessel's name, call sign, ETA at pilot boarding place, grt, draft, and speed.

Pilots for Kobenhavn and Tuborg can be contacted by VHF and board about 3.4 miles NE of the main port entrance.

**Regulations.**—Foreign naval vessels are prohibited from anchoring in or passing through Kobenhavns Red, the port roadstead. The limits of the roadstead, which may best be seen on the chart, extend up to about 5 miles NE of the port and about 2 miles S and SW of Amager.

**Anchorage.**—Three designated anchorage areas, which may best be seen on the chart, lie within Kobenhavns Red. Anchorage No. 1, centered 2.5 miles NE of Middelgrunds Fort, is for vessels with drafts of 6m or more; Anchorage No. 2, centered 2 miles

NNW of Middelgrunds Fort, is for vessels with drafts of less than 6m; and Anchorage No. 3, centered 1 mile NNW of Middelgrunds Fort, is reserved for vessels proceeding to Kobenhavn. The bottom in these anchorage areas varies between fine sand, mud, and clay, with good holding ground.

Vessels are prohibited from anchoring in the approach channels, in the line of the directional lights and ranges, and in such a manner as to obstruct or interfere with the safe and clear passage of other vessels.

**Caution.**—Numerous submarine cables and pipelines are situated within the port and may best be seen on the chart.

It is reported (1998) that areas lying outside the main entrance are under extensive reclamation. Generally, the seaward limits of the works in progress are marked by buoys.

### The Sound—South Part

**1.17** The Swedish coast between Barsebackshamn (55°45'N., 12°54'E.) and Falsterbo (55°23'N., 12°50'E.) is closely built over. The land rises behind the shore and there are a few wooded areas.

**Lommabukten** (55°41'N., 13°00'E.) is entered between Barsebackshamn and Lernacken, 11 miles S.

**Saltviken** (55°45'N., 12°57'E.), a small bay, indents the N part of Lommabukten. A power station stands on the N side of the entrance to this bay and is fronted by Barsebacksværket, a small harbor. The harbor is protected by a breakwater and provides a ro-ro berth, 100m long, with a depth of 5.7m

alongside. The entrance channel, which is 90m wide, leads NNW from the SW side of Saltviken and has a controlling depth of 6m. It is marked by buoys and indicated by a lighted range.

Vikhogs Hamn, a small and shallow harbor, is situated close SE of the S entrance point of Saltviken. It is formed by two breakwaters and used by fishing boats.

A church and a windmill, which are conspicuous from seaward, stand in the vicinity of Loddekopinge, about 3 miles NE of Vikhogs Hamn.

**Lomma** (55°41'N., 13°04'E.), a small craft harbor, is situated at the mouth of the Hojean River, 4.6 miles SE of Vikhogs Hamn and about 3 miles NNE of Malmo. It is formed by two breakwaters extending W from the mouth of the river. The entrance faces WSW and has a controlling depth of 2.5m. A quay, 270m long, is situated on the N side of the harbor and has depths of 2.5 to 3.2m alongside.

A church, with a prominent spire, and a conspicuous silo, with a chimney standing close S, are situated in the vicinity of Lomma.

**Anchorage.**—A designated anchorage area, with depths of 13.5 to 15m, lies centered 2.5 miles S of Barsebacksværket and may best be seen on the chart. This area is marked at its NE end by a buoy and at its NW end by a lighted buoy.

Anchorage is available off Lomma, in depths of 7 to 10m, clay and fine sand, about 0.8 mile SW of the harbor entrance.

**Caution.**—A prohibited area, which may best be seen on the chart, fronts Barsebacksværket harbor.

An area, within which fishing is prohibited, fronts Lomma and may best be seen on the chart.

## Malmo (55°37'N., 13°00'E.)

World Port Index No. 24210

**1.18** The port of Malmo, situated on the S side of Lommabukten, consists of four main harbors. Oljehamnen and Swede harbor, consisting of a single basin, is situated in the NE part of the port and is entered through a separate channel. Centralhamnen, consisting of four basins, is situated in the SW part of the port and is entered through the main entrance channel. Frihamnen, consisting of a single basin, is situated close E of Centralhamnen and is entered through the main entrance channel. Industrihamnen, consisting of two large basins and one small basin, is situated NE of Frihamnen and is entered through a separate passage leading E from the E side of the main entrance channel.

**Winds—Weather.**—Strong NW and N winds may cause the water level in the harbor to rise by up to 1.2m above the mean sea level. Strong SE and S winds, particularly in spring, may lower the water level by up to 1.3m.

**Ice.**—The harbor is seldom obstructed by ice, but even in normal winters there may be drift ice in the approach channels. Icebreakers are available when conditions necessitate their use.

**Depths—Limitations.**—The entrance channel leading SE to Oljehamnen and Swede Harbor, which is 3.2 miles long, is dredged to a depth of 13.5m and varies in width from 120 to 150m.

Oljehamnen, the oil terminal, consists of a single basin, with a depth of 13.5m. There are two tanker berths, each 70m long,

with depths of 12m alongside. There are also five berths for coastal tankers with depths of 6m alongside. Tankers up to 260m in length and 11.4m draft can be accommodated.

Swede Harbor, a bulk terminal, is situated at the W side of Oljehamnen. The quay is 200m long and has a depth of 13.5m alongside. Vessels up to 60,000 dwt (100,000 dwt partly loaded), 260m in length, 40m beam, and 12.5m draft can be accommodated.

The main entrance channel leading SE into Centralhamnen is 120m wide and is dredged to a depth of 9.2m. Centralhamnen consists of Yttre Hamnen, Nyhamnen, Inrehamnen, and Sodra Varvsbassangen.

Yttre Hamnen, with a depth of 7.2m, has a quay belonging to the repair yard on its W side and a hovercraft terminal on its E side. Inrehamnen has a passenger terminal quay, 390m long, on its E side, with depths of 5 to 6m alongside.

Nyhamnen, the New Basin, has 4,230m of total quayage and provides ten berths with depths of 6 to 7.2m alongside. There are facilities for ferry, passenger, ro-ro, bulk, and general cargo vessels. Vessels up to 150m in length and 6.6m can be accommodated.

Sodra Varvsbassangen, with depths of 3 to 6.5m, is entered through a bascule bridge located at the SW end of Yttre Hamnen. This basin provides eight berths for bulk grain vessels on its E and S sides.

Industrihamnen, consisting of three basins, is entered through a side channel, 80m wide, with a depth of 9m. The harbor has 3,025m of total quayage and provides 38 berths, with depths of 6 to 9m alongside. There are facilities for ro-ro, bulk, and general cargo vessels. Vessels up to 170m in length and 8.4m draft can be accommodated.

Frihamnen, the Freeport Harbor, has 1,500m of total quayage and provides 14 berths, with depths up to 9.2m alongside. There are facilities for container and ro-ro vessels. Vessels up to 225m in length and 8.6m draft can be accommodated.

A large shipyard, with two drydocks, is situated in the SW part of the port. The largest drydock, which is used for ship building, is 405m long and 75m wide.

**Aspect.**—Malmo Vagbrytarbank Light (55°37.5'N., 12°58.6'E.) is shown from a prominent tower, 12m high, standing on the W side of the main entrance channel.

The entrance channels are indicated by lighted ranges and marked by lighted buoys, which may best be seen on the chart. An outer fairway lighted buoy is moored about 1.6 miles NW of the entrance to Centralhamnen.

Saint Petri Church, with a high spire, and Malmo Citadel stand about 0.3 mile SE and 0.5 mile SW, respectively, of Inrehamnen basin and are conspicuous from seaward.

**Pilotage.**—A main pilot station is located at Malmo. This station provides pilots for that part of the Oresund Maritime Area extending between the vicinity of Landskrona and Sandhammaren (55°23'N., 14°12'E.). Pilotage for this part of the area is available 24 hours and is compulsory for the following vessels:

1. All Category 1 vessels.
2. Category 2 vessels of 80m length and over or 15m beam and over.
3. Category 3 vessels of 90m length and over or 16m beam and over.

In certain channels leading to and from Barsebacksverket, pilotage is compulsory for the following vessels:

1. All category 1 vessels.
2. Category 2 and 3 vessels of 80m length and over, 15m beam and over, and 5m draft and over.

All ordering of pilots in the Oresund Maritime Area must be made through Malmo VTS. Vessels should send a request for pilotage and an ETA at least 5 hours in advance. Requests for deep-sea pilots for The Sound should be sent at least 24 hours in advance.

Pilots board vessels bound for Swede Harbor or Oljehamnen, with drafts of over 11m, about 1.5 miles NW of Pinhattan Light (55°45'N., 12°52'E.). For the remainder of the Malmo basins, Limhamn, and Barsebacksverket, pilots board in the vicinity of Malmo Redd Lighted Buoy (55°39'N., 12°57'E.). Pilots can be contacted on VHF channel 14 or 20.

During bad weather, vessels may be required to embark pilots at the roadstead anchorage.

**Regulations.**—A Vessel Traffic Service (VTS) system operates in the approaches to the port.

Vessels over 50 grt and towing vessels whose length, including tows, exceeds 50m are required to report to Malmo Harbor Radio on VHF channel 14 when they are at least 2 miles from the seaward end of the Malmo entrance channel.

The VTS center may be contacted by E-mail at [vtsmalmo@sjofartsverket.se](mailto:vtsmalmo@sjofartsverket.se).

**Anchorage.**—Vessels may anchor in Malmo Redd, the roadstead lying about 1 mile N of Malmo Vagbrytarbank Light (55°37.5'N., 12°58.6'E.). This roadstead has depths of 12 to 14m, stiff blue clay. A wreck, with a depth of 10.8m, lies close E of this roadstead and is marked by a buoy moored on its W side.

**Directions.**—Vessels approaching from N may pass E or W of Pinhattan Light (55°45'N., 12°52'E.), depending on their draft (see paragraph 1.12).

**Caution.**—Defensive minefields are laid in the main approach channel and in the channel leading to Oljehamnen. Anchoring is prohibited within these fields and vessels should avoid passing through them during a thunderstorm.

Considerable ferry traffic, including high speed craft, may be encountered, especially in the summer, in the approach to the main entrance channel.

Access to the oil terminal (Oljehamnen) is restricted to vessels involved in cargo operations.

Two submarine outfall pipelines, which may best be seen on the chart, extend about 1 mile NW from a point located close E of Oljehamnen and are marked at the seaward end by a buoy.

At night, under certain conditions, the lighted range indicating the main entrance channel may be difficult to identify against the lights of the town.

The buoys marking the main entrance channel should not be passed too close as strong winds and currents cause them to swing about 3m away from their original positions.

It is reported (1999) that the defensive minefields lying in the approaches to Malmo have been removed.

It is reported (2000) that extensive land reclamation and construction is being carried out in the approaches to the port.

## Limhamn (55°35'N., 12°56'E.)

World Port Index No. 24220

**1.19** The port of Limhamn lies about 2 miles SW of Malmo and serves a number of nearby industrial establishments. It is under the jurisdiction of Malmo.

**Winds—Weather.**—Winds from SW through W to N may raise the water level by up to 1m and winds from N through E to SW may lower the water level by the same amount.

**Ice.**—Ice obstructs the harbor only in very severe winters.

**Tides—Currents.**—The currents set across the entrance channels and, at times, attain velocities of 3 to 4 knots.

**Depths—Limitations.**—The port has two separate commercial harbors. Centralhamnen, situated in the N part of the port, consists of a single large basin. The entrance channel leads SSW and is dredged to a depth of 8.6m. The harbor provides 12 berths and has depths of 7.7 to 8.4m alongside. Cargo vessels up to 170m in length and 7.8m draft can be accommodated.

Sodrahamnen, situated in the S part of the port, is used by ro-ro ferries and fishing vessels. The entrance channel leads E and is dredged to a depth of 5m. Vessels up to 4.5m draft can be accommodated.

Marinas, with extensive facilities for small craft and yachts, are situated close SW of Sodrahamnen and close NNE Centralhamnen.

**Aspect.**—The entrance channels are indicated by lighted ranges and marked by buoys, which may best be seen on the chart.

Numerous tall chimneys, including one 120m high, stand on the E side of Centralhamnen. A conspicuous church, with a tall red square tower and a dark gray spire, stands on high ground on the S side of the town, about 1 mile SE of Centralhamnen.

A prominent aeronautical beacon tower stands about 2 miles ESE of Centralhamnen.

**Pilotage.**—See Pilotage for Malmo in paragraph 1.18.

**Anchorage.**—Small vessels can anchor seaward of the submerged breakwater, which lies close W of the entrance to Centralhamnen, in a depth of 9m, rock and clay bottom. submerged breakwater,

**Caution.**—Submarine breakwaters, 0.4 miles long, are located about 0.3 mile NW and 0.9 mile NE of the entrance to Centralhamnen.

**1.20** The most shallow section of Oresund (The Sound) lies in the waters located between Malmo and the Danish island of Amager. Vessels are directed to transit this area through Flintrannan on the Swedish side, or through Drogden (see paragraph 1.27), on the Danish side.

**Oresund Link** (55°35'N., 12°46'N.), a fixed railroad and motor traffic link, extends across The Sound from the vicinity of Kobenhavn Airport (55°37'N., 12°40'E.) to the vicinity of Lernachen (55°34'N., 12°55'E.), on the Swedish coast.

The W section of the Oresund Link extending across Drogden to the N end of Peberholm (see paragraph 1.26), the artificial island lying SW of Salholm, consists of a submerged tunnel.

The E section of the Oresund Link extending across Flintrannan from the S end of Peberholm to the Swedish coast



Oresund Link from N

consists of a bridge. The elevated part of the bridge crossing the channel has a free span, 490m wide, with a vertical clearance of 55m.

**1.21 Flintrannan** (55°37'N., 12°53'E.) is the passage lying between the Swedish coast in the vicinity of Malmo, on the E side, and the shoal flat fronting Saltholm (55°38'N., 12°46'E.) on the W side. It is encumbered with numerous dangers, which may best be seen on the chart.

**Depths—Limitations.**—The main fairway through Flintrannan is dredged to a depth of 8.4m over a width of 370m. Vessels up to 7m draft can transit this passage. The bridge span crossing the channel has a vertical clearance of 55m.

Trindelranna, a narrow channel, leads SW for 5 miles from close SW of Malmo Vagbrytarbank Light (55°37.5'N., 12°58.6'E.). It then leads about 1 mile SSW, passing under a span of the Oresund Link bridge, to a position close W of the lighted buoy marking the W extremity of the coastal bank in the vicinity of Lernacken (55°34'N., 12°54'E.). This channel, which has a least depth of 5.6m, can be used by vessels up to 4.5m draft. Local knowledge is required and transit during the herring fishing season is only allowed during daylight. The bridge span is 100m wide, with a vertical clearance of 40m.

**Aspect.**—Flintrannan NE Light (55°36.8'N., 12°53.4'E.), equipped with a racon, is shown from a prominent floodlit tower, 12m high, standing at the NE side of the N entrance to the main channel, about 1.8 miles NW of Limhamn.

Flintrannan SW Light (55°31.1'N., 12°44.7'E.), equipped with a racon, is shown from a prominent floodlit tower, 11m high, standing at the SW side of the S entrance to the main channel, about 1.6 miles SE of Drogden Light.

The main dredged fairway is marked by lighted buoys and lighted beacons, which may best be seen on the chart.

The main fairway routes under the bridge are indicated by lighted ranges, which are equipped with racons.

**Pilotage.**—Pilotage is provided by the main station at Malmo. All ordering of pilots must be made through Malmo VTS ([see paragraph 1.18](#)). Vessels intending to transit Flintrannan should send a request for pilotage, with their draft, and an ETA 5 hour in advance. Pilots can be contacted by VHF and board in the vicinity of Malmo Redd Lighted Buoy (55°39'N., 12°57'E.) or about 1 mile NNE of the Lighted Buoy M41(55°25'N., 12°40'E.).



Oresund Link—Peberholm Island

Malmo VTS broadcasts details of current strength and water levels in the vicinity of Flintrannan.

**Caution.**—Sjollen, an extensive shoal, lies centered about 2.5 miles WNW of Malmo Vagbrytarbank Light (55°37.5'N., 12°58.6'E.) and 1 mile NNE of the N entrance to the dredged



**Oresund Link—Flintrannan**

channel. It has depths of 2.5 to 6m and is marked by lighted buoys.

Lillgrund, a large shoal, lies centered about 1 mile ESE of Flintrannan SW Light and is marked by buoys. This shoal has depths of 1.7 to 5.7m and its N edge is situated adjacent to the S side of the dredged channel.

Several submarine cables, which may best be seen on the chart, extend across Flintrannan between 1 mile and 2.5 miles SW of the Oresund Link bridge.

Herring fishing, with drift nets, is carried out within Flintrannan. Generally, the nets are laid between dusk and midnight. Vessels are cautioned to stay in the recommended channels and tracks, especially from June to November.

A submarine gas pipeline, which may best be seen on the chart, extends W and NW from the vicinity of Klagshamn (55°31'N., 12°54'E.) to the SE coast of Amager. It crosses the dredged channel about 0.5 mile NNE of Flintrannan SW Light.

**1.22** Between Limhamn and Hollviken, 8 miles S, the coast is low, but rises inland. The area near the coast is considerably built over, but there are occasional wooded patches.

**Hollviken Light** (55°31'N., 12°51'E.) is shown from a prominent floodlit tower, 10m high, standing about 3.5 miles ESE of Flintrannan SW Light.

**Bredgrund** (55°31'N., 12°51'E.), an extensive shoal, lies centered about 2.6 miles SW of Hollviken Light and may best be seen on the chart. It is marked on the W side by a lighted buoy and on the E side by several buoys. A prominent framework beacon, 4m high, stands on the shoal, 2.3 miles SW of Hollviken Light. This shoal has depths of less than 3m and consists of sand, rocks, and stones.

Viragogrund, a detached shoal patch, lies off the SW side of Bredgrund, about 4.5 miles SW of Hollviken Light. It has a depth of 5.6m and is marked by a buoy.

**Klagshamn** (55°31'N., 12°54'E.) ([World Port Index No. 24230](#)), a small harbor, is situated 4 miles S of Limhamn and protected by a two breakwaters. It is used by fishing vessels, small craft, and yachts. A dredged entrance channel, 24m wide, leads ENE from a position about 0.3 mile N of Hollviken Light. It is marked by buoys and has a controlling depth of 4m.

**Caution.**—A submarine outfall pipeline extends about 2 miles WNW from a point on the shore close N of the harbor and its seaward end is marked by a buoy.

The landing place for a submarine gas pipeline, which may best be seen on the chart, is located in the S part of the harbor.

**1.23** The **Skanor Peninsula** (55°24'N., 12°53'E.) extends about 5 miles W from the coast, 7 miles S of Klagshamn. Falsterbokanalen, an excavated canal, cuts through the narrow neck of land at the E end of this peninsula. The W side of the peninsula is low and fronted by several islets.

**Knosen** (55°26'N., 12°52'E.), situated 4.5 miles S of Hollviken Light, is the NW extremity of the peninsula. It is fronted by a shoal flat, with depths of less than 2m, which extends up to about 1 mile seaward in places.

**Skanor** (55°25'N., 12°50'E.), a popular summer resort, is situated on the W side of the peninsula, 1.5 miles SSW of Knosen. It is fronted by a small harbor, which is protected by two breakwaters. The entrance, which faces NE, is 50m wide and has a controlling depth of 4m. The harbor is used by small craft and pleasure boats.

A conspicuous white church, with a dark red roof and a low tower, stands in Skanor and a prominent water tower is situated 1 mile S of it. Another conspicuous white church, with a high tower, stands in Falsterbo, a resort located about 1.7 miles S of Skanor.

**Naset** (55°27'N., 12°57'E.), a promontory, extends about 1.5 miles NNW from the N side of the root of the Skanor Peninsula. Kuddarna, a group of islets, lies centered about 1.2 miles NNW of the N end of this promontory. A conspicuous beacon, 11m high, stands on the southernmost islet.

Between Klagshamn and Naset, about 4 miles SSE, the shallow coastal bank extends up to 1.2 miles offshore.

**Hollviken** (55°26'N., 12°55'E.), a shallow bay, lies on the N side of the Skanor Peninsula and is entered between Knosen and the N end of Naset. This bay provides good anchorage for small vessels, sheltered in all but N winds, in depths of 3 to 5m, sand and clay.

**Falsterbo Udde Light** (55°23'N., 12°49'E.), marking the S end of the E side of The Sound, is shown from a prominent round tower with a square base, 25m high, standing near the SW extremity of the Skanor Peninsula. A conspicuous radar mast is situated about 1.6 miles ENE of this light.

The waters lying S and E of Falsterbo Udde Light are described beginning in [paragraph 4.25](#).

**Falsterborev Light** (55°19'N., 12°38'E.) is shown from a tower standing 7 miles SW of Falsterbo Udde Light and is described in [paragraph 4.25](#).

**Caution.**—An unsurveyed area, which may best be seen on the chart, lies centered 1.4 miles N of Knosen.

A nature reserve area, which may best be seen on the chart, lies centered 0.8 miles WSW of Knosen. Vessels are prohibited from entering this area between April and July.

Sailing races are frequently held within 2 miles of Skanor.

**1.24** **Falsterbo Kanal** (55°24'N., 12°57'E.) is cut across Falsterbonaset, the inner part of the Skanor Peninsula. It connects the S part of Hollviken, in The Sound, with Kampebukten, in the W part of the Baltic Sea. This route



*Photo courtesy of Donald and Diana Carter*

### Falsterbo Udde Light

shortens the passage between Flintrannan and the Baltic Sea by 16 miles.

A dredged approach channel, about 6 miles long, leads SSE from the vicinity of Hollviken Light to the N entrance of the canal. It is marked by buoys and has a least depth of 5.6m.

The N entrance of the canal is protected by two breakwaters, which extend about 0.3 mile from the shore. The canal control tower can be contacted on VHF channel 73.

The canal can usually be transited by vessels up to 15,000 dwt, 20m beam, and 5m draft.

For further details of the Falsterbo Kanal, see [paragraph 4.27](#).

**Directions.**—The main traffic route leads S from the S entrances of Drogden Channel and Flintrannan Channel to the vicinity of Falsterborev Light (55°19'N., 12°38'E.).

An IMO-adopted Traffic Separation Scheme (TSS) lies near Falsterborev Light, in the S approach to The Sound, and may best be seen on the chart. A circular route is centered on the light and traffic lanes extend N, S, and ESE from its vicinity. An inshore traffic zone lies E of the main traffic lanes.

Lighted Buoy M41 is moored about 5 miles WNW of Falsterbo Udde Light and marks the N end of the TSS.

The main route into the Baltic Sea follows the ESE traffic lane and passes S of the entrance to Trelleborg (55°22'N., 13°09'E.).

**Caution.**—Numerous wrecks, which may best be seen on the chart, lie in the vicinity of the TSS and the S approach to The Sound.

### Kobenhavn to Mon Light

**1.25 Amager** (55°35'N., 12°35'E.), a flat island, lies close S of Kobenhavn, on the Danish side of The Sound. This island is considerably built over and Kobenhavn Airport is situated at its E side. Kongelund, a wooded area, is located at the S end of the island.

Sunby Sejlforenings Havn and Kastrup Strandpark are two pleasure boat harbors situated about 0.7 mile and 2 miles, respectively, S of Provstenshavn, the oil terminal at Kobenhavn.

**Kastrup Scanport Havn** (55°38'N., 12°39'E.) ([World Port Index No. 29250](#)), situated about 2.5 miles SSE of Provstenshavn, is a small privately owned harbor. The approach channel, which is 40m wide and marked by buoys, leads WSW and is dredged to a depth of 5m. The harbor consists of a single basin with depths of 3 to 5m. The entrance is 40m wide and faces E. Vessels up to 75m in length can be handled.

Two small pleasure boat harbors are situated close S of Kastrup Scanport Havn.

**Nordre Rose Light** (55°38'N., 12°41'E.), equipped with a racon, is shown from a prominent tower, 17m high, standing near the edge of the coastal bank, about 1 mile E of Kastrup Scanport Havn.

Kobenhavn Airport occupies most of the coastal land extending about 2 miles S of Kastrup Scanport Havn.

**Dragor Havn** (55°36'N., 12°41'E.), situated 3 miles SSE of Kastrup Scanport Havn, is a small harbor protected by two breakwaters. It has depths of 2 to 3.5m and is used by ferries and fishing vessels. The entrance channel has a controlling depth of 3.5m. Ferries have the right of way over all other vessels within the entrance channel. Vessels up to 45m in length, 10m beam, and 3m draft can be accommodated.

**Dragor Ferry Harbor** (55°35'N., 12°41'E.), situated close S of Dragor Havn, has an entrance, 60m wide, facing NE. The entrance channel has a controlling depth of 4.8m. Ferry vessels up to 80m in length, 20m beam, and 4.5m draft can be accommodated.

A water tower and a church, both conspicuous, stand in the town of Dragor. Dragor Fort Light is shown from a structure, 3m high, standing about 0.3 mile S of Dragor Havn.

**Caution.**—In the vicinity of Kobenhavn Airport, low flying aircraft can cause turbulence and wind eddies over the water surface for a distance of up to 3 miles from the airport. The wind velocity within these eddies can form violent waterspouts and constitute an extreme danger to small craft.

A prohibited area, which may best be seen on the chart, fronts the shore in the vicinity of Kobenhavn Airport. Vessels are prohibited from stopping within this area.

A restricted area, within which fishing is prohibited, lies close W of Nordre Rose Light and may best be seen on the chart. In addition, in order to reduce the amount of danger to aircraft caused by seabirds massing in the vicinity, fishing is prohibited within 150m of the coast between Nordre Rose Light and Redningshavn, about 1.5 miles S.

**1.26 Saltholm** (55°39'N., 12°46'E.) lies with its N extremity located 3.5 miles NE of Nordre Rose Light. This island is low, flat, and devoid of woods. It has no conspicuous landmarks except for a few isolated houses. The island is surrounded by an extensive sandy bank, which nearly dries within about 0.5 mile of the shore. Numerous islets and above-water rocks lie on this bank and may best be seen on the chart.

**Saltholm Flak** (55°41'N., 12°45'E.), an extensive flat with depths of less than 5m, extends about 3 miles N from the N end of Saltholm and may best be seen on the chart.

**Flakfort** (55°42'N., 12°44'E.), previously described in [paragraph 1.14](#), lies on the NW part of Saltholm Flak.

**Peberholm** (55°36'N., 12°45'E.), an artificial island, lies 0.5 mile SW of the SW side of Saltholm. This island is part of the Oresund Link ([see paragraph 1.20](#)). It forms the E end of the tunnel passing under Drogden and the W end of the bridge spanning Flintrannan.

**Drogden Light** (55°32'N., 12°43'E.), equipped with a racon, is shown from a prominent square tower, 20m high, standing about 3.4 miles SSE of Dragor Havn and 0.8 mile S of the S end of Drogden Channel.



**Drogden Light**

**Caution.**—A protected area, within which navigation is prohibited, surrounds Saltholm and may best be seen on the chart. The outer limits of this area almost coincide with the 5m depth contour.

Several nature reserve areas lie off the S end of Saltholm and may best be seen on the chart. Entry into these restricted areas is subject to numerous regulations.

A danger area, which may best be seen on the chart, lies centered about 0.5 mile W of the N end of Peberholm. Anchoring, fishing, or underwater activities should be avoided in this area due to the possible existence of bottom mines.

A local magnetic anomaly exists in the vicinity of a position about 1.5 miles SW of Drogden Light.

**1.27 Drogden** (55°36'N., 12°42'E.), the fairway extending S from the S end of Hollaenderdybet ([see paragraph 1.14](#)) lies between the coastal banks fronting Amager and Saltholm. The S part of the channel, lying S of Dragor Fort Light, is known as Dragor Bro (Taerskelen).

**Tides—Currents.**—Because the current in the S part of Drogden does not follow the direction of the dredged channel, vessels should exercise great care to prevent being set onto the channel buoys or Drogden Light (55°32'N., 12°43'E.). The current flowing S, the greater part of which comes through Flintrannan, sets in a WSW direction. The current flowing N, which is deflected by the bank fronting the SE side of Amager, sets in a NE direction. The construction of the Oresund Link may have affected the direction and strength of these currents.

**Depths—Limitations.**—The fairway through Drogden is dredged to a depth of 8m. Vessels up to 7.7m draft can transit this passage.

**Aspect.**—The fairway within Hollaenderdybet is indicated by a directional sector of Nordre Rose Light. The dredged channel in Drogden is marked by lighted buoys.



**Nordre Rose Light**

**Pilotage.**—Pilotage is provided by SOUNDPILOT, København. Vessels should send a request for pilotage and an ETA 6 hours in advance with a confirmation 1 hour prior to arrival at the boarding place. Pilots may be contacted by VHF and board about 1.5 miles N of Middelgrunds Fort or 1.3 miles S of Drogden Light.

**Regulations.**—Vessels with drafts exceeding the officially announced limitations may not pass through the channel.

Vessels using the channel must proceed at moderate speed.

Vessels are prohibited from anchoring in the dredged channel or within 50m of either side of it.

Vessels which, on account of their size, are obliged to keep in the deeper part of the channel may display the appropriate signal or lights for a constrained vessel. Such vessels may also make a sound signal consisting of one long blast followed by two short blasts. Other vessels must give way to those vessels displaying the above signal or lights.

All vessels with an air draft of more than 35m, including towed vessels, must report to the control tower of København Airport, via Lyngby Radio, 30 minutes before passing through Drogden dredged channel. The passage of such vessels may endanger low flying aircraft in the vicinity. The message should include the vessel's name, call sign, position, course, speed, ETA at Drogden, and air draft.

**Caution.**—Numerous ferries, including high-speed craft, may be encountered in the vicinity of Drogden Channel.

Several submarine cables, which may best be seen on the chart, extend across Drogden from the vicinity of Dragor Havn.

**1.28 Koge Bugt** (55°30'N., 12°26'E.) is entered between Aflandshage, the S extremity of Amager and Koge Sonakke, a low point located about 12 miles SW. Koge stands at the head of this large bay and the area N of this town is devoid of woods. The coasts of Amager and Sjaelland bordering the bay are generally low.

A number of small harbors are situated along the shore of Koge Bugt and are used by fishing boats and pleasure craft.

Mosedede Klint, a low, yellow cliff, stands about 10.5 miles W of Aflandshage and some comparatively high land backs the coast about midway between Koge and Koge Sonakke. Wooded areas are situated 3 miles SSE and 7 miles SE of Koge.

**Caution.**—Fishing nets are laid in Koge Bugt, particularly in the N part, and may extend up to 4 miles offshore. Net fishing on the bottom is strictly regulated and may only take place in designated areas, which are marked by buoys.

A danger area, which may best be seen on the chart, lies centered about 3 miles SSW of Aflandshage. Anchoring, fishing, or underwater activities should be avoided in this area due to the possible existence of bottom mines.

A restricted area, which may best be seen on the chart, lies in the vicinity of a wreck, about 4.8 miles SW of Aflandshage. Anchoring, fishing, and underwater activities are prohibited within this area.

**1.29 Avedorevaerkets Havn** (55°36'N., 12°29'E.), a small privately-owned harbor, is situated in the N part of Koge Bugt, close W of the S entrance to Kalvebodlobet, the channel leading NE into the S part of Kobenhavn.

**Depths—Limitations.**—A dredged approach channel, 55m wide, leads NNW to the harbor and has a controlling depth of 7.3m. The harbor consists of a small basin and a main quay. It is protected by a curving breakwater on the W side and a detached breakwater on the E side. The quay provides a berth, 280m long, with a depth of 7.5m alongside. The harbor has facilities for handling oil and coal. Vessels up to 123m in length, 21m beam, and 6.5m draft can be accommodated.

**Aspect.**—The approach channel is marked by buoys and indicated by directional sector lights. A conspicuous chimney, 149m high, stands near a silo on the W side of the harbor.

**Pilotage.**—Pilotage is compulsory. Pilots are provided by SOUNDPILOT, Kobenhavn.

**Regulations.**—Permission to enter the approach channel is required.

**Caution.**—A submarine cable, which may best be seen on the chart, extends S from a point on the shore located about 1.5 miles W of the harbor.

**1.30 Avedore Rastofthavn** (55°37'N., 12°30'E.), situated 0.9 mile NE of Avedorevaekets Havn, is a small privately-owned harbor, which can accommodate vessels up to 100m in length, 12m beam, and 4m draft.

**Koge** (55°27'N., 12°12'E.) ([World Port Index No. 29220](#)) is situated at the mouth of the Koge River, about 13 miles SW of Avedorevaekets Havn. The port consists of an outer harbor and two main basins, which are protected by two long breakwaters.

**Ice.**—The port is seldom closed by ice.

**Tides—Currents.**—Winds from NE to SE can raise the water level by up to 1.6m and winds from W can lower it by as much as 0.9m.

**Depths—Limitations.**—The entrance between the breakwater heads is 60m wide. The harbor provides about 3,000m of main quayage with depths of 3 to 7m alongside. There are facilities for general cargo, bulk, timber, ro-ro, tankers, and LPG vessels. Vessels up to 160m in length, 24m beam, and 6.7m draft can be accommodated.



Koge

**Aspect.**—The entrance channel is indicated by a lighted range. A prominent church stands in the town.

A conspicuous church, with a red tower, is situated at Valloby, about 3.5 miles SSE of the harbor. A prominent castle, with a spire and two towers, stands 0.8 mile W of this church.

**Pilotage.**—Pilots are provided by SOUNDPILOT, Kobenhavn. Pilotage is compulsory for all tankers and all other vessels over 450 grt or 1,000 dwt. Pilots can be contacted by VHF and board vessels from the N about 1 mile S of Drogden Light and vessels from the S about 9 miles SW of Drogden Light (Koge W). Pilots also board vessels about 7 miles SW of Drogden Light (Koge E).

Vessels should send an ETA and a request for pilotage 6 hours in advance. Vessels must report to the port 1 hour prior to arrival and announce their presence on VHF channel 16 to other vessels 30 minutes before arrival.

**Anchorage.**—Anchorage, with good holding ground, is available 1 to 2 miles E of the harbor.

**Caution.**—A submarine outfall pipeline, which may best be seen on the chart, extends about 2.7 miles ESE and ENE from a point on the shore located 0.5 mile N of the harbor.

**1.31** From Koge Sonakke (55°24'N., 12°22'E.), the S entrance point of Koge Bugt, to Stevns Light, at the W side of the S limit of The Sound, the coast trends first in a general SE direction for about 5 miles to Mandehoved and then S for about 2.5 miles.

Precipitous chalk cliffs commence about midway between Koge Sonakke and Mandehoved and extend along the coast as

far as Rodvig, 3.5 miles SW of Stevns Light. This cliffy stretch of coast, which is named Stevns Klint, attains a height of 41m about 1 mile NNW of the light. Kustirenden, a deep cleft, is situated about 1.2 miles NNW of Mandehoved and is conspicuous from seaward.

**Stevns Light** (Stevns Klint Light) (55°17'N., 12°27'E.) is shown from a prominent tower, 26m high.

**Stevns Pier** (55°19'N., 12°28'E.), situated 2 miles N of Stevns Light, is a privately-owned terminal used by vessels loading chalk. The pier extends about 500m from shore and has a head, 205m long, with a depth of 8m alongside. Pilotage is compulsory for vessels over 5,000 dwt. Vessels should send an ETA through their agent 24 hours and 12 hours in advance. Vessels should then contact the terminal on VHF 2 hours before arrival. Pilots are provided by SOUNDPILOT and board about 1.2 miles S or 9 miles SW of Drogden Light. Vessels up to 150m in length and 7.5m draft can be accommodated during calm weather.



**Stevns Light**

**1.32 Fakse Bugt** (55°08'N., 12°19'E.) is entered between Stevns Light and Hellehavns Nakke, the NE extremity of Mon, about 17 miles S. The W part of this bay is mostly occupied by an extensive flat, with depths of less than 5m, which may best be seen on the chart. Between Stevns Light and Rodvig, 3.5 miles SW, the steep chalk cliffs of Stevns Klint decrease in height. From Rodvig to Fakse Havn, 7.5 miles WSW, the coast is low.

The old and new churches standing at Hojerup, about 0.7 mile SSW of Stevns Light, are conspicuous from seaward.

**Rodvig** (55°15'N., 12°23'E.), a small harbor, is protected by two moles extending from the shore. It has an entrance, 70m wide, which faces SW and has a controlling depth of 3.7m. The harbor is used by fishing vessels and yachts. Vessels up to 50m in length, 10m beam, and 3.1m draft can be accommodated.



**Mon Light**

**Fakse Ladeplads Havn** (55°13'N., 12°10'E.) ([World Port Index No. 29180](#)), situated in the NW part of the bay, is a small commercial harbor used for the export of limestone.

A dredged channel, about 0.5 mile long, leads NNW to the harbor. It has a bottom width of 25m and a controlling depth of 4.2m. The harbor is also used by fishing vessels and yachts. Vessels up to 100m in length, 20m beam, and 4.1m draft can be accommodated. Both the entrance channel and the harbor basin are subject to silting. A conspicuous silo stands at the E side of the harbor.

Anchorage can be obtained, in a depth of 5m, blue clay and sand, about 0.3 mile from the harbor and W of the entrance channel.

**Bogestrom** (55°04'N., 12°10'E.), a passage leading SW and S into the W side of Stege Bugt ([see paragraph 2.52](#)), lies in the SW part of Fakse Bugt. The channel, which connects with the N end of Ulvsund, leads between the NW end of Mon and the mainland coast of Sjaelland. It has a controlling depth of 2.3m and is used only by small craft and pleasure boats.

**Caution.**—Bottom fishing nets are placed within 1.5 miles of the shore between Hojstrup Pynt, close SW of Rodvig and Fakse Ladeplads Havn.

**1.33 Hellehavn Nakke Light** (55°00'N., 12°31'E.) is shown from a prominent tower, 6m high, standing on the NE extremity of Mon.

The N coast of Mon is generally low. The E part of Mon rises gradually toward the E coast, which consists mainly of steep, chalk cliffs topped by wooded land. This cliffy stretch, known as Mons Klint, commences about 0.7 mile SSE of Hellehavn Nakke Light and ends at the SE extremity of the island. The cliffs attain their greatest elevation about 2.5 miles SSE of the light.

**Mon Light** (54°57'N., 12°33'E.) is shown from a prominent square tower, 13m high, standing on the SE extremity of Mon.

A conspicuous church is situated at Magleby, 3 miles NW of Mon Light.